

**Bournemouth University (BU)**

**web accessibility guidelines**

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**Web Accessibility Guidelines**

# Introduction

With effect from June 2012, Bournemouth University (BU) will ensure that all new web-based technologies used to deliver services to students, staff and the wider community meet the industry standards on web accessibility.

Considering accessibility from the outset helps to provide an improved user experience, and means that web-based information and services are set up to be accessible to all users irrespective of location, ability, background, language or access to technology.

The aim of these guidelines is for BU web products and services to achieve compliance with the latest industry web content accessibility guidelines and standards, which are the:

* Web Content Accessibility Guidelines (WCAG) 2.0 ([Appendix 1](#_Appendix_1:_Web))
* British Standards on Web Accessibility [BS 8878:2010]. ([Appendix 2](#_Appendix_2_British)).

Putting the external industry guidelines and standards into practice means that it will be much easier for BU to demonstrate to external and internal audiences that its websites and services are accessible. It will also help to reduce the risk of any legal challenge on the grounds of failing to make reasonable adjustments under equality legislation (Equality Act, 2010) and regulatory codes (QAA Code of Practice, Disabled Students).

Adopting these web accessibility guidelines will provide BU with a framework to ensure that its web products and services are available to all, thereby reflecting institutional commitments to equality and diversity.

These guidelines will be reviewed every 12 months to ensure that they are fit for purpose and remain compliant with the latest industry standards concerning web accessibility. An update on how BU is meeting its web accessibility commitments will be included in the annual report presented to the Dignity, Diversity and Equality Steering Group (DDESG).

# Defining web products and services at BU

Before outlining the BU approach to web accessibility it is necessary to define “web products” and “services”. For the purpose of these guidelines BU will draw on the definition provided by the British Standard Industry (BSI) which defines web products as:

* Any website, web-service[[1]](#footnote-1), or web-based application (such as email) designed for internal or external audiences hosted via IP and Hypertext Transfer Protocol delivered to users through a web browser or intranet protocol. This could include: virtual learning environments; Rich Internet Applications (RIA); “Software as a Service”/Cloud computing services; internet-enabled “widgets” that can be run inside and outside the browser using desktop runtimes such as Java and Adobe AIR.
* Anything viewed on different internet-enabled platforms, including computers, mobile phones and other internet-enabled devices such as eBook readers, tablets and televisions.

Specific examples of BU web services and products would be the BU:

* Externally facing website
* Staff Intranet
* Student Portal
* Virtual Learning Environment (myBU)
* BU applications such as the Research Enterprise Database

# 3. Industry standards and guidelines

There are some key industry standards and guidelines concerning web accessibility which have been summarised below. It is the intention that BU adopts these.

# 3.1 Web content accessibility guidelines (WCAG)

The latest WCAG 2.0 guidelines, which were published in December 2008, are organised under four main principles:

* Perceivable
* Operable
* Understandable
* Robust

To meet the four principles WCAG has identified three levels of conformance, which are:

*(When verifying conformance it is necessary for relevant staff to refer to the* [*WCAG 2.0 documentation*](http://www.w3.org/TR/WCAG20/)*)[[2]](#footnote-2)*

**Level A Compliance** – This level incorporates all the “must-have” checkpoints. This gives **basic access** to most groups of disabled users, as it will eliminate the **major barriers**. This is considered to be the minimum level of industry compliance.

In practice, meeting **level A** will require BU to:

* provide transcripts, audio-descriptions and subtitles for all the videos and audio produced by Schools and Professional Services such as the VC video.
* ensure its web pages can be easily accessed by a range of assistive technologies, and when doing this the content as well as structure is maintained.
* provide text alternatives to any BU materials where colour is used to provide any meaning, such as University forms or examination papers.
* provide users with the ability to “turn off” any background sound linked to the webpage.
* ensure users are able to access BU public and internal web pages via a keyboard.
* provide its users with the option to “turn-off” anything they might consider distracting when accessing content via its web pages.
* ensure any of its web pages do not contain anything that flashes more than three times in any one second period or the flash is below the general flash and red flash thresholds.
* ensure users are able to effectively navigate around BU internal and external webpages, and when changes are made the effects are predictable.
* ensure staff and students can make amendments to BU web pages when they are completing specific on-line activities.

**Level AA Compliance** – This level incorporates all the “should-have” checkpoints (which **incorporate all the A standards**) and ensures a good level of accessibility. By meeting level AA a website is **accessible in most circumstances** and with the **majority of technologies**. It should therefore meet the requirement to make “reasonable adjustment.” This is considered to be the preferred **minimum** level of industry compliance.

In practice, meeting **level AA** will require BU to:

* provide alternative formats for video and audio to deaf/hearing impaired and blind/visually impaired students/staff and the wider community.
* ensure blind/visually impaired students/staff can effectively access BU web content with and without assistive technologies.
* ensure BU web pages are organised and structured in a way that they can be accessed by a range of disabled people.
* ensure suggestions are made when disabled people make a mistake completing online activities (i.e. on-line enrolment for students).

**Level AAA Compliance** – This level incorporates all the “may-have” checkpoints (which **incorporates all the A, AA standards**) and ensures a very **high level of accessibility**. It needs significant levels of planning and investment. This is considered to be the **optimum level of** industry **compliance**.

In practice, meeting **level AAA** will require BU to:

* provide alternative formats to lectures delivered by BU staff or visiting speakers.
* allow disabled people to make changes to web pages that best suit their individual needs.
* provide disabled people with the necessary time to undertake specific activities such as on-line assessment.
* ensure its web content is not designed in a way that may cause seizures.
* ensure its web pages, site or applications can be easily accessed by users.
* to provide context sensitive help when the label on the BU webpage does not provide all the necessary information.
* provide all users with the opportunity to review any information (before it is submitted) which could apply to students completing on-line enrolment or staff making entries to Unit-E.

Whilst the guidelines are targeted at enhancing the online experience of disabled people, it is important to remember that the adoption of the four principles will benefit **all** who access a BU web product or service. BU aims to meet the AA or AAA standard with all its web products and services.

[Appendix 1](#_Appendix_1:_Web) provides a checklist for staff and committees to use when considering the levels of conformance. **When verifying conformance with WCAG 2.0 guidelines it is also necessary to refer to the official documentation provided by the** [World Wide Web Consortium (W3C)](http://www.w3.org/Consortium/).[[3]](#footnote-3)

# 3.2 British standards on web accessibility

The British Standard (BSI) 8878:2010 (Web Accessibility Code of Practice) sets a process for organisations to follow when considering accessibility. It provides recommendations for building and maintaining web products that are accessible and usable to disabled and older people. [Appendix 2](#_Appendix_2_British) provides more information about this web accessibility standard.

# 4. Roles and responsibilities for web accessibility at BU *(for new products secured and implemented after June 2012)*

BU is committed to adopting the WCAG level 2.0 guidelines and the BSI: 8878:2010 web accessibility standard. It will achieve this by ensuring all new products and services, whether purchased from a third party or developed and customised within BU after **June 2012** meet the guidelines and web accessibility standard. **It will be the responsibility of the Project Sponsor for each newly commissioned BU web product and service to decide on the level of WCAG conformance it wishes to adopt.** Further information about the IT project work being undertaken at BU can be found via the Estates and IT Project Management Office.[[4]](#footnote-4)

The BU Information Technology Design Council (ITDC) will have first-hand knowledge of all new web-based products and services being procured and implemented by BU and ultimately take responsibility for monitoring the implementation of these web accessibility guidelines for all web products and services. This will be achieved by ensuring that all new products and services display a commitment to meeting the WCAG 2.0 guidelines as part of the IT project acceptance criteria and demonstrate they have achieved this at the service transition stage. Progress on meeting these guidelines will be considered as a sub-item when each IT project is considered by ITDC.

Responsibility for determining what assistive software BU provides for its students, staff and members of the public will be incorporated into the BU Dignity, Diversity and Equality [Action Plan[[5]](#footnote-5)](http://www.bournemouth.ac.uk/facilitiesandresources/diversity/ddesg.html) and will be reviewed on an annual basis. Responsibility for purchasing, deploying and maintaining assistive software at BU will be held by Estates and IT.

The Executive Director of Organisational Development and the Dignity, Diversity and Equality Steering Group (DDESG) are also key stakeholders in the need for BU to conform to the guidelines and standards and the ITDC will be asked to provide an annual report[[6]](#footnote-6) to the DDESG via the Equality and Diversity Adviser.

# 4.1Roles and responsibilities for web accessibility at BU *(for products in place before June 2012)*

In addition, service owners within Schools and Professional Services will be required to undertake an assessment of the web product or service upon Change Management Board change request. The assessment will establish level of conformance to the University guidelines and immediate action required. This work will be managed by ITDC and the findings and subsequent work will be incorporated into the DDE Annual Report and action plans.

Responsibility for ensuring BU web products and services meet the University web guidelines is shared between the Office of the Vice Chancellor, 5 Professional Services and 6 Schools, which are:

* Office of the Vice-Chancellor - this Professional Service is responsible for the top-level strategy, planning, policy and management of the University. It also includes a number of cross-University functions to support delivery.
* Estates and IT – this Professional Service is responsible for the maintenance of the IT infrastructure, supporting IT project development, management and implementation, as well as procurement of new products and services.
* Marketing and Communications – this Professional Service is responsible for ensuring the public facing website is maintained as well as the student portal. It is also plays a role in all social media.
* Student and Academic Services – this Professional Service is responsible for the BU virtual learning environment (VLE) and all associated web based technologies.
* Human Resources and Organisational Development – this Professional Service is responsible for the staff intranet, the Working for BU website and all human resource systems.
* Finance and Performance – this Professional Service is responsible for overseeing the management of the University’s finances and for monitoring and reporting its performance.

All Schools have a responsibility for the creation and maintenance of accessible content produced for the web and the VLE.

# 4.2 Information technology procurement

The IT development project lifecycle will incorporate the necessary steps to ensure all new applications it purchases (including templates/style sheets) are developed in accordance with the BU web accessibility guidelines.

The University will also ensure through its tender specifications, where possible, that any new applications or services it purchases, accesses or develops are compatible with a range of assistive software. If this is not possible then it will provide reasonable adjustments which will enable disabled students, staff and members of the community to access them. This responsibility will be decided at the project level, with updates being provided to ITDC and DDESG.

# 4.3 Internal information technology development

When developing any web products or services, BU will ensure that newly commissioned projects will meet the University web accessibility guidelines. BU will also work with existing suppliers to ensure the products / services they provide meet the current version of the existing University web accessibility guidelines.

# 4.4 Service Owners

All of the University’s main web services or products will appoint a Service Owner who will be responsible for their service / product continuing to meet BU’s evolving web accessibility guidelines. Examples of Service Owners are the Staff Intranet Manager (who is responsible for all content, structure and editorial decisions concerning the Staff Intranet) and the Senior Communications Manager, who holds similar responsibilities for the About BU section of the University website. These nominated individuals are required to:

* ensure their content conforms to the BU approach to web accessibility as outlined within these guidelines.
* manage web product developments in line with the institutional web guidelines.
* ensure that alternative content is offered when it is not possible for content to be fully compliant. (When this is required it will be the responsibility of the School or Professional Service affected to provide the alternative content).
* support the annual web accessibility progress review which will be undertaken by Estates and IT, and reported on via the annual DDE report.[[7]](#footnote-7)
* act as a main point of contact for website users within their School or Professional Service, or across the University, depending on their role.

# 4.5 Web developers, editors and content contributors

All web developers, content owners, authors and editors in Schools and Professional Services will be made aware of the commitment to adopting the BU web accessibility guidelines through attendance at mandatory staff development events.

In practice what this means for web developers is that they will be required to meet the BU web accessibility guidelines when producing valid code. There will also be the requirement to work towards promoting the:

* User Agent Accessibility guidelines.[[8]](#footnote-8) These explain how to make software (e.g. web browsers, media players and assistive technologies), accessible to disabled people through the production of WCAG 2.0 complaint websites.
* Authoring Tool Accessibility Guidelines which define how authoring tools should help developers produce web content that is accessible. These guidelines also explain how to make authoring tools accessible to disabled people.

To support the embedding of the web accessibility guidelines, the Equality and Diversity Adviser will ensure that key staff such as service owners, web developers, content owners, authors and editors in Schools and Professional Services have access to appropriate development opportunities on accessibility. These developmental opportunities need to be identified on individual Personal and Professional Development Plans. It is also necessary to highlight the requirement to meet the University web accessibility guidelines in BU job descriptions.

The Equality and Diversity Adviser will be responsible for informing service owners, web developers, content owners, authors and editors of updates to web accessibility guidance.

**4.6 User testing**

When purchasing, developing or reviewing any web product or service it is necessary to undertake an element of user testing. The reason for undertaking user testing is that it will help to provide the best evidence of web product accessibility and usability. Some of the benefits of undertaking user testing are listed below:

* people are unpredictable: how users interact with a web product is often different from the assumptions of web production teams. User testing often uncovers unexpected requirements.
* people are adaptable: designs that appear problematic might be usable in reality.
* web developers and designers become familiar with the features of their design solutions and frequently fail to notice problems that disabled users might experience.
* web developers and designers have different and sometimes conflicting goals to users. User testing evidence is sometimes needed to qualify the merit of different design approaches.
* web developers and designers have computing skills, but might have limited knowledge of alternative computing environment.
* User testing provides real and often new insight into how different types of users access the web through using assistive software.

When establishing the level of user testing it will very much depend on the web product and services being commissioned and reviewed externally or internally by BU. Staff are advised to refer to the checklist in Appendix 3 when deciding on the level of user testing.

# Appendix 1: Web content accessibility guidelines (WCAG) 2.0

BU is adopting the WCAG 2.0 guidelines which are organised under four main principles:

* Perceivable – Information and user interface components must be presentable to users in ways they can perceive.
* Operable – User interface components and navigation must be operable.
* Understandable – Information and the operation of user interface must be understandable
* Robust – Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.

WCAG has also identified three levels of conformance, which are:

* A – This level incorporates all the "must-have" checkpoints. This gives **basic access** to most groups of disabled users, as it will eliminate the **major barriers**. This is considered to be the **minimum** level of compliance.
* AA – This level incorporates all the "should-have" checkpoints and ensures a good level of accessibility. By meeting level AA a website is **accessible in most circumstances** and with the **majority of technologies**. It should therefore meet the requirement to make “reasonable adjustment.” This is considered to be the **preferred** level of compliance.
* AAA – This level incorporates all the "may-have" checkpoints and ensures a very **high level of accessibility**. It needs significant levels of planning and investment. This is considered to be the **optimum level of compliance**.

Each level of conformance has been summarised below in a checklist which aims to enable staff to start thinking about the issues related to web products and services accessibility. **When verifying conformance with WCAG 2.0 relevant staff are required to refer to the** [WCAG 2.0 documentation](http://www.w3.org/TR/WCAG20/)**.[[9]](#footnote-9)**

**BU WCAG 2.0 A, AA and AAA checklist**

|  |  |  |  |
| --- | --- | --- | --- |
| **A Requirement**  **(When verifying conformance with WCAG 2.0 relevant staff are required to refer to the** [**WCAG 2.0 documentation**](http://www.w3.org/TR/WCAG20/)**.)** [<http://www.w3.org/TR/WCAG20/>] | | **Yes** | **No** |
| **1.** | To provide text alternatives to non-text web content such as alt tags to provide an accurate description of any icon |  |  |
| **2.** | To provide audio description and subtitles to deaf/hearing impaired as well as blind/visually impaired people |  |  |
| **3.** | To provide web content that can be easily accessed by disabled people and the assistive software that they might use, without the structure or content changing |  |  |
| **4.** | To enable users to still access information which is presented in colour and to be able to turn off the background sounds linked to any webpage |  |  |
| **5.** | To provide all functionality via a keyboard |  |  |
| **6.** | To ensure any content does not induce any seizures |  |  |
| **7.** | To provide enough time to enable the user to interact with the web content and to remove any distractions |  |  |
| **8.** | To ensure users have all the necessary time to access content as well as hide, pause or stop anything i.e. auto updates or moving, blinking or scrolling information |  |  |
| **9.** | To ensure when web content is being developed it can be accessed in a predictable way |  |  |
| **10.** | To help users to identify when an error has been made and determine what is wrong |  |  |
| **11.** | To ensure BU web content can be accessed by assistive technologies*(Advice on assistive technologies is available from Additional Learning Support or the Equality and Diversity Service)* |  |  |
| **AA Requirement [this incorporates all A requirements]**  **(When verifying conformance with WCAG 2.0 relevant staff are required to refer to the** [**WCAG 2.0 documentation**](http://www.w3.org/TR/WCAG20/)**.)**[<http://www.w3.org/TR/WCAG20/>] | | **Yes** | **No** |
| **12.** | To provide video and audio (real-time) via captions and audio description to deaf/hearing impaired and blind/visually impaired people |  |  |
| **13.** | To ensure web pages have enough of a contrast to enable users to see and hear content |  |  |
| **14.** | To ensure users are able to access and understand the information which is consistently organised within a web page |  |  |
| **15.** | To ensure appropriate suggestions are made when users make mistakes |  |  |
| **AAA Requirement [this incorporates all A and AA requirements]**  **(When verifying conformance with WCAG 2.0 relevant staff are required to refer to the** [**WCAG 2.0 documentation**](http://www.w3.org/TR/WCAG20/)**.)**[<http://www.w3.org/TR/WCAG20/>] | | **Yes** | **No** |
| **16.** | To provide alternative formats for blind/visually impaired and deaf/hearing impaired people to live audio such as video conferencing |  |  |
| **17.** | To enable users to make changes to content i.e. font size, background colour, font etc |  |  |
| **18.** | To ensure all content is operable via a keyboard |  |  |
| **19.** | To provide disabled people with the time they require to read and access information, and undertake specific tasks available via a webpage |  |  |
| **20.** | To remove any flashes on a web page which would cause seizures |  |  |
| **21.** | To support users to be able to effectively navigate web pages (including understanding the purpose of each link/provide headings for sections of a webpage), site or application |  |  |
| **22.** | To provide a mechanism for identifying and understanding specific definitions of words or phrases |  |  |
| **23.** | To provide users with full control over content, and to provide a help facility which is context specific |  |  |
| **24.** | To provide disabled people with the opportunity to review information before its submitted |  |  |

# Appendix 2 British standards on web accessibility (BS 8878:2010)

The British Standard 8878:2010 (Web Accessibility Code of Practice) sets a process rather than technical specifications. It provides recommendation for building and maintaining web products that are accessible and usable to disabled and older people by outlining a number of steps for organisations to follow, which are:

* Step 1: define the main purpose of the product (what users will expect to achieve when using the product).
* Step 2: define the target audiences for the web product.
* Step 3: analyse the needs of the target audiences for the web product.
* Step 4: note any platform or technology preferences and restrictions of the web product’s target audiences.
* Step 5: define the relationship the product will have with its target audiences.
* Step 6: define the user goals and tasks the web product needs to provide.
* Step 7: consider the degree of user-experience the web product will aim to provide.
* Step 8: consider inclusive design and user-personalised approaches to accessibility.
* Step 9: choose the delivery platforms to support.
* Step 10: choose the target browsers, operating systems and assistive technologies to support.
* Step 11: choose whether to create or procure the web product in-house or contract out externally
* Step 12: define the web technologies to be used in the web product.
* Step 13: use web guidelines to direct accessible web production.
* Step 14: assure the web product’s accessibility through production.
* Step 15: communicate the web product’s accessibility decisions at launch.
* Step 16: plan to assure accessibility in all post-launch updates to the product

With BU adopting this standard it is required to:

* address all of the recommendations of this British Standard.
* be able to justify any course of action that deviates from its recommendations
* document the decisions taken to provide evidence of meeting the British Standard.

British Standard 8878:2010 is a web accessibility standard that is applicable to all types of organisations (public/private companies), non-profit organisations, government departments, local councils and academic institutions.

Appendix 3: User testing checklist  
  
When staff are considering user testing, the checklist below could help when deciding on what approach to undertake.

|  |  |  |
| --- | --- | --- |
| **Question/Comment** | | **Answer** |
| 1. | To decide on the criteria to be assessed and sample size. For example, will disabled people be a  ble to perform critical tasks by using their assistive software? |  |
| 2. | The budget for compliance checking and user testing needs to be built into tendering activities when commissioning new products or services. |  |
| 3. | How will individuals be encouraged to take part in the user testing? For example will incentives be provided to encourage attendance? |  |
| 4. | Who will undertake the user testing and will it be undertaken internally or externally? |  |
| 5. | How will the user testing be evaluated? For example, what evaluation method will you be using to establish the findings? Will usability problems be identified, as well as users being able to identify why they are having difficulties? |  |

1. The commitment at BU is to ensure that accessibility will incorporate all web based interactions with online systems which involve personal interactions (such as using the BU website) and not for underlying data transfer between systems (such as the BU payments system interacting with a UK Bank). [↑](#footnote-ref-1)
2. http://www.w3.org/TR/WCAG20/ [↑](#footnote-ref-2)
3. http://www.w3.org/Consortium/ [↑](#footnote-ref-3)
4. https://cmb.bournemouth.ac.uk/BUProjects/eis/default.aspx [↑](#footnote-ref-4)
5. <http://www.bournemouth.ac.uk/facilitiesandresources/diversity/ddesg.html> [↑](#footnote-ref-5)
6. This will be achieved by building an accessibility field into the Service Now tool which will allow Service Owners to identify the WCAG level of conformance they have achieved, and will be used to inform the DDE Annual Report. [↑](#footnote-ref-6)
7. Please see footnote 5. [↑](#footnote-ref-7)
8. These guidelines help to explain how to increase accessibility to web content for users. [↑](#footnote-ref-8)
9. <http://www.w3.org/TR/WCAG20/> [↑](#footnote-ref-9)